

## AMENDMENTS TO THE CLAIMS

*Please cancel claims 1-6 without prejudice.*

1-6. (Cancelled)

*Please add the following new claims:*

7. (New) A single-chip transceiver comprising:
  - a single RF (radio frequency) combined input/output port in a time-division duplex (TDD) system;
  - a receiver including an amplifier with an impedance transformation network having an input and output terminal, the amplifier input and output terminal being coupled to the RF input/output port;
  - a baseband filter coupled to the amplifier;
  - a demodulator coupled to the baseband filter; and
  - a transmitter including a power amplifier with a matched impedance network having an input and output port, the output port of the power amplifier being coupled to the RF input/output port, wherein a synthesizer is coupled to the power amplifier.
8. (New) The transceiver of claim 7, wherein the transceiver comprises complementary metal oxide semiconductor (CMOS) devices.
9. (New) The transceiver of claim 7, wherein the RF combined input/output port interfaces with an external antenna.

10. (New) The transceiver of claim 7, wherein the baseband filter comprises switched capacitor technology
11. (New) The transceiver of claim 7, wherein the synthesizer performs FSK modulation.
12. (New) The transceiver of claim 7, wherein the amplifier input and output terminal interfaces with the external antenna without use of an antenna switch.
13. (New) A single-chip direct conversion receiver, comprising:  
an amplifier having an input terminal and an output terminal, the amplifier input terminal interfacing with an external antenna via a combined RF input/output port;  
a mixer having an input and output terminal, the mixer input terminal being coupled to the amplifier output terminal;  
a baseband filter coupled to the mixer, the baseband filter comprising switched capacitor technology; and  
a demodulator coupled to the baseband filter.
14. (New) The receiver of claim 13, wherein the receiver comprises complementary metal oxide semiconductor (CMOS) devices.
15. (New) The receiver of claim 13, wherein the demodulator performs FSK modulation.
16. (New) The receiver of claim 13, wherein the amplifier input and output terminal interfaces with the external antenna without use of an antenna switch.

17. (New) A radio frequency transmitter comprising:  
a power amplifier, the power amplifier including with a matched impedance  
network, the power amplifier having an input port and an output port, and  
a synthesizer coupled to the input port of the power amplifier;  
wherein the output port of the power amplifier is coupled to a combined RF  
input/output port, the combined RF input/output port being coupled to an  
antenna.
18. (New) The transmitter of claim 17, wherein the transmitter operates in a TDD  
(time division duplex) system.
19. (New) The transmitter of claim 17, wherein the transmitter comprises  
complementary metal oxide semiconductor (CMOS) devices.
20. (New) The transmitter of claim 17, wherein the transmitter is to transmit signals  
to the antenna without use of an antenna switch.